OPERATING MANUAL

Personal Multi-Printer

SILVER REED Editronics

SILVER REED

PREFACE

Congratulations on your purchase of our Personal Multi-Printer.

The Multi-Printer, driven by DC batteries or AC power, prints on either plain or thermal paper and produces amazing range of characters and symbols with none of the bother of changing printing elements. Calculation feature is also added to this printer.

Your careful reading of this manual will maximize your effective use of the Multi-Printer.

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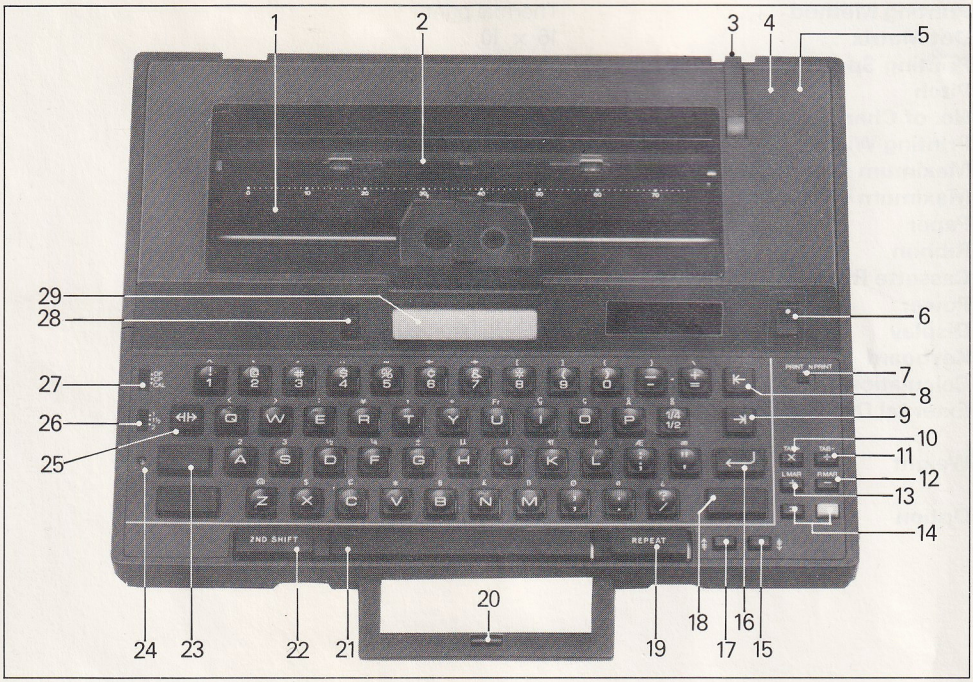
CONTENTS

SPECIFICATIONS 2
DESCRIPTION 3
POWER SOURCE 4
To set the batteries 4
AC Adaptor 4
ON/OFF SWITCH 5
CASSETTE RIBBON 5
To replace the cassette ribbon 5
TO SET PAPER 6
SELECTORS 7
PRINT Mode Selector 7
PRINT/CAL Mode Selector 7
Line Space Selector 7
DISPLAY 8
Cursor 8
Display Dial 8
Text on the Display 8
Print and Calculation Modes 8
"RETURN" 9
"WEAK BATTERIES" 9
Error Sign "E" 9
Print Head 9
FUNCTION KEYS 10
To set the margin 10
To clear the margin 10
To set the tab 10
To clear the tab 11
Tab All Clear 11
Shift Key 11
Shift Lock Key 11
Second Shift Key 11
Space Bar 11
Return Key 12
Back Space Key ..... 12~13
Tab Key 13
Index Key 13
Back Index Key 13
Repeat Key 13
CALCULATION 14
To use the calculation keys 14
To print the calculations 14
To correct calculations 14
Calculation Example 15
In case the digits of the calculated results blink 16
In case the error sign "E" appears 16
PRINT HEAD CLEANING 17
CARE AND MAINTENANCE 17
IN CASE OF DIFFICULTY 18
IMPORTANT

SPECIFICATIONS

Printing Method	Thermal print
Dot Matrix	16 × 10
Printing Speed	10 cps.
Pitch	10 ch./inch
No. of Characters	132
Printing Width	7.5 inches (190.5mm)
Maximum Line Length	75 characters
Maximum Paper Width	8.7 inches (221 mm)
Paper	Plain/thermal paper
Ribbon	Thermal transcript cassette ribbon
Cassette Ribbon Capacity	20,000 characters
Power	DC/AC
Display	LCD (full matrix) 5 × 7 dots/ch. × 16 ch.
Keyboard	44 character keys+18 function keys
Calculation	+, −, ×, ÷, =
External Dimensions	12.6(W) × 9.8(D) × 2.2(H) inches 320(W) × 250(D) × 56(H) mm
Weight	6.6 lbs. 3 kg (w/Hard Case+Batteries)
Option	AC adaptor Interface

DESCRIPTION

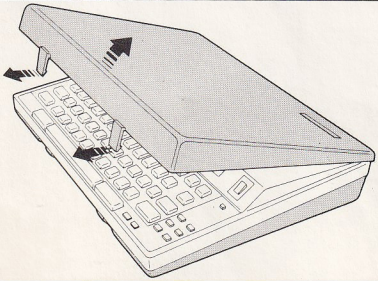


1. Paper Bail Cover
2. Platen
3. Paper Release Lever
4. Connector for AC Adaptor
5. Connector for Interface
6. ON/OFF Switch
7. Print Mode Selector
8. Back Space Key
9. Tab Key
10. Tab Set Key
11. Tab Clear Key
12. Right Margin Set Key
13. Left Margin Set Key
14. Calculation Keys
15. Index Key
16. Return Key
17. Back Index Key
18. Shift Key
19. Repeat Key
20. Carrying Handle
21. Space Bar
22. 2nd Shift Key
23. Shift Lock Key
24. Shift Lock Signal Light
25. Margin Release Key
26. Line Space Selector
27. Print/Cal Mode Selector
28. Display Control
29. Display

The following accessories are packed together with this printer.

a. Plain and thermal paper
   (10 sheets each)
b. Cassette ribbon (3 pieces)
c. Print head cleaner (1 piece)
d. Hard case
e. AC adaptor (option)

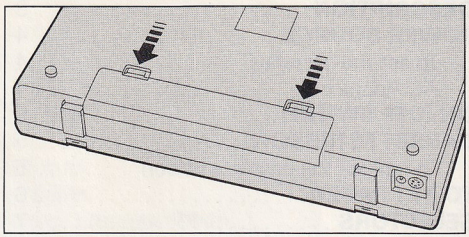
d.



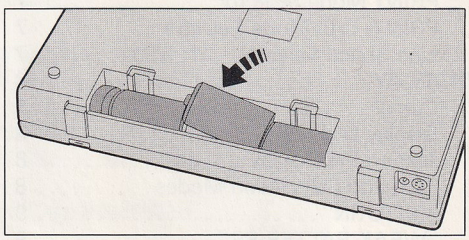
POWER SOURCE

To set the batteries

1. Press the latches of the battery compartment lid on the bottom cover as illustrated and remove the lid.



2. Install four batteries with correct polarity as indicated.
3. Put the lid back.



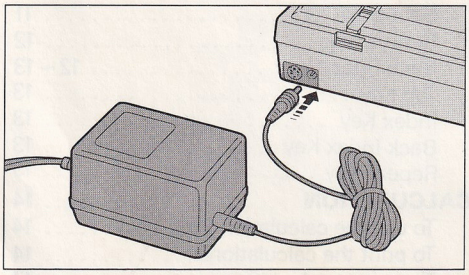
Notes:

- *Use four new "D" cell batteries. IEC designation LR20 (Alkaline) or R20 (Manganese) batteries. Alkaline batteries recommended.*
- *If the batteries are exhausted while in operation, the message "WEAK BATTERIES" will appear on the display. The batteries must be replaced with new ones of the same kind.*
- *When the printer is not used for a long period of time, remove the batteries to avoid the damage that may be caused by battery leakage or corrosion.*

AC Adaptor

Before using the printer, check the back plate on the rear side to see whether the voltage shown accords with power supply.

Connect the AC adaptor cord with the jack on the rear of the printer and with a power outlet.



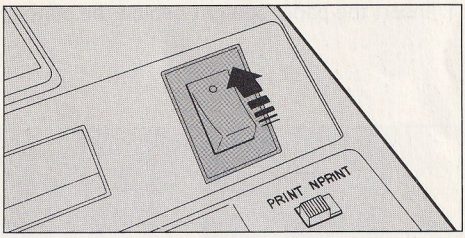
Notes:

- *The installed batteries will be automatically disconnected when the AC adaptor is connected.*
- *If the AC adaptor is not in use for a long time, unplug it to avoid damage.*
- *Use the designated AC adaptor only.*
- *The connector next to the adaptor jack is for the optional interface.*

ON/OFF SWITCH

Open the hard case.
Turning the ON/OFF switch on will make the carrier perform the initial movement and the Print/Cal mode condition is shown on the display. A short beep sounds twice to indicate the completion of initialization.

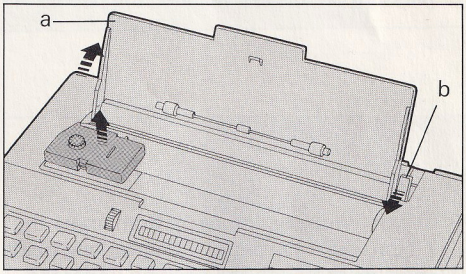
If you wish to turn on the ON/OFF Switch right after switching off, be sure to wait 2 seconds or more.



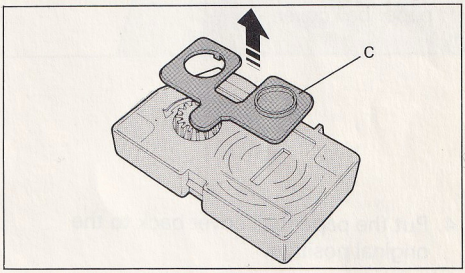
CASSETTE RIBBON

To replace the cassette ribbon

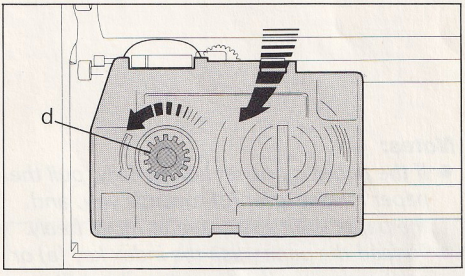
1. Open the paper bail cover (a).
2. Pull the paper release lever (b) towards you.
3. Remove the used cassette ribbon by lifting it up.



4. Remove the stopper (c) of the new cassette ribbon and attach it to the carrier.



5. Turn the ribbon feed knob (d) in the arrow direction and keep the ribbon tape tight. Make sure that the print head touches the ribbon tape.
6. Put the paper release lever back to the original position.

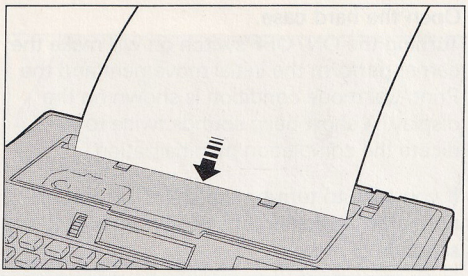


Notes:

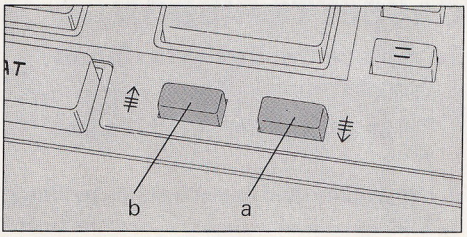
- *When using the thermal paper, be sure to remove the cassette ribbon.*
- *Use the designated cassette ribbon only.*

TO SET PAPER

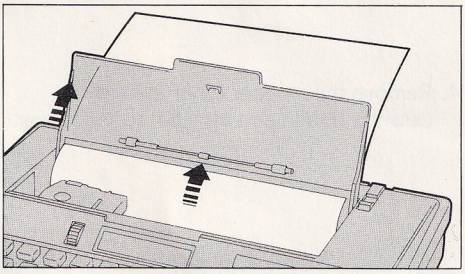
1. Insert the paper straight behind the platen.



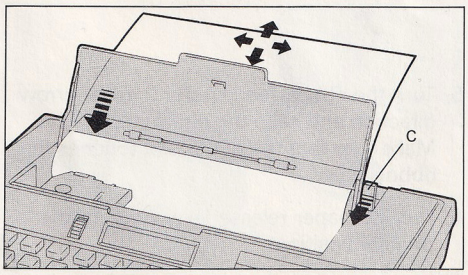
2. Depress the index key (a). Continuous pressure on this key will feed the paper.



3. When the paper comes up from under the platen, open the paper bail cover and guide the paper through the opening under the paper bail cover.



4. Put the paper bail cover back to the original position.



Notes:

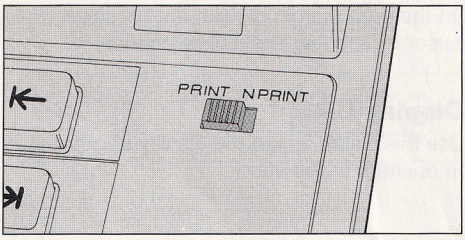
- *If the paper is not set horizontally, pull the paper release lever (c) towards you, and the paper will be released to move freely.*
- *To feed the paper, use the index key (a) or back index key (b). Do not pull out the paper from the platen by hand.*

SELECTORS

The following selectors are provided on this printer. The selectors must be set properly prior to operation.

Print Mode Selector

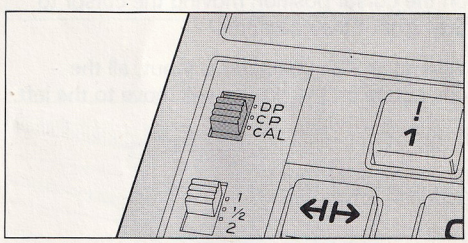
This selector is used in conjunction with the Print/Cal mode selector.



■PRINT Mode
For printing.

■N PRINT (NON PRINT) Mode
No printing is performed, but characters are only shown on the display.

Print/Cal Mode Selector



■DP (DIRECT PRINT) Mode
Characters are printed directly onto the paper as the key is depressed. Correction of errors on the paper is not possible. Set the margin and tab in this mode.

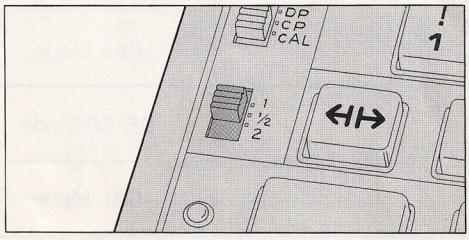
■CP (CORRECTION PRINT) Mode
Printing commences when the display of 15-characters plus the cursor becomes full. The first character prints out after the 16th character (including space) is input. Correction of errors on the display can be made by using the back space key.

■CAL (CALCULATION) Mode
This mode is used for calculation of 4 basic rules: +, −, ×, ÷.

Notes:

- *Depress the return key before setting the Print mode selector or the Print/Cal mode selector.*
- *Depress one key at a time.*

Line Space Selector



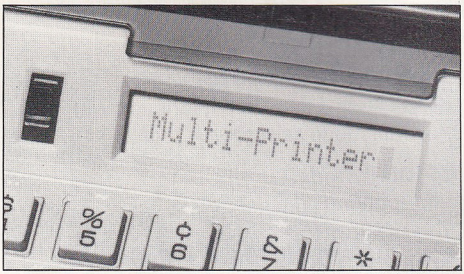
■**1** — 1-line spacing (1/6 inch/line)
■**1½** — 1½-line spacing (1/4 inch/line)
■**2** — 2-line spacing (1/3 inch/line)

DISPLAY

Cursor

A maximum of 16 characters appear on the display. A character can be input where the cursor blinks.

On the right margin or right final position, the cursor disappears and a beep sounds.



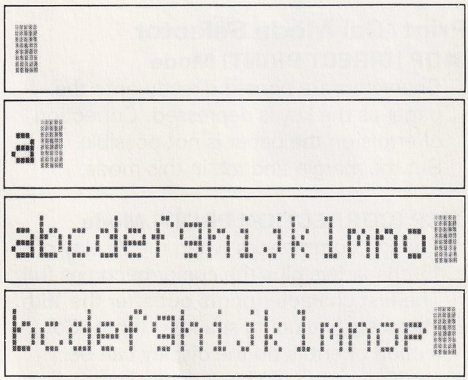
Display Dial

Use this dial to adjust the display brightness to operator's discretion.

Text on the Display

Depress a key, and the character will appear on the cursor position moving the cursor to the right of the character.

When the 16th character is input, all the characters on the display will move to the left.



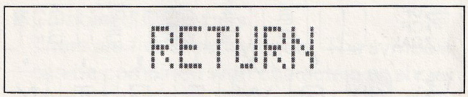
Print and Calculation Modes

When the printer is switched on, the required mode appears on the display in the following combination.

Print Mode Selector	Print/Cal Mode Selector	Display
PRINT Mode	DP Mode	DIRECT PRINT
	CP Mode	CORRECTION PRINT
	CAL Mode	CALCULATION
N PRINT Mode	DP, CP Mode	NON PRINT
	CAL Mode	CALCULATION

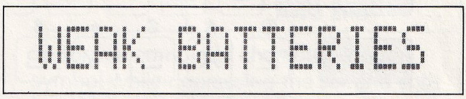
"RETURN"

While the carrier is returning to the left margin, RETURN appears on the display and input of characters cannot be done.



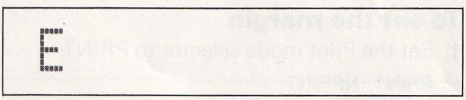
"WEAK BATTERIES"

When the batteries are exhausted, "WEAK BATTERIES" will appear on the display. (See the note on page 4.)



Error Sign "E"

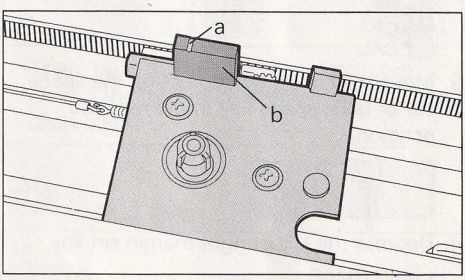
In the CAL mode, if the digits overflow, "E" will appear on the display. (See "In case the error sign 'E' appears" on page 16.)



Print Head

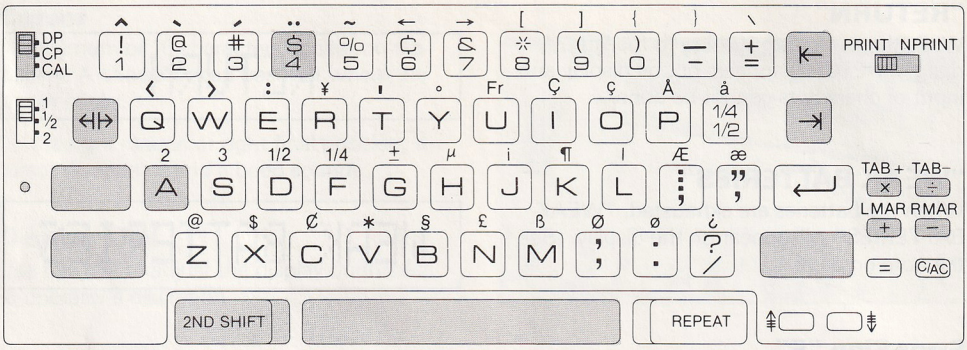
The white line (a) on the print head (b) on the carrier indicates the next printing position.

While printing, the last two characters are behind the print head and are not visible.



FUNCTION KEYS

(U.S.A./Australia Keyboard 901/I)



To set the margin

1. Set the Print mode selector to PRINT.

   PRINT NPRINT

2. Set the Print/Cal mode selector to DP.

   DP
   CP
   CAL

3. Move the carrier by depressing the space bar or back space key to the required position.

4. Depress the left or right margin set key.

   LMAR RMAR

5. A beep sounds to affirm that the margin setting operation is in effect.

Notes:

- *The left margin cannot be set to the right of the right margin and vice versa.*
- *The distance between the left and the right margins must be no less than 2 spaces.*
- *A beep sounds seven spaces before and when reaching the right margin.*

To clear the margin

1. Move the carrier to the present margin set position.
2. Depress the margin release key.

Notes:

- *A new margin clears the old margin.*
- *Margin settings are also cleared when the printer is switched off.*

To set the tab

1. Set the Print mode selector to PRINT.

   PRINT NPRINT

2. Set the Print/Cal mode selector to DP.

   DP
   CP
   CAL

3. Move the carrier to the required position.
4. Depress the tab set key.

   TAB+

5. A beep sounds to affirm the setting of the tab.

Note:

- *Up to 16 tabs can be set.*

To clear the tab

1. Move the carrier to the tab set position by depressing the tab key.

2. Depress the tab clear key.

TAB–

3. A beep sounds to affirm the clearing of the tab set.

Tab All Clear

Depressing the tab clear key while pushing the second shift key clears all the tab settings in DP or CP mode regardless of the carrier position.

Note:

- *All the tab settings are also cleared when the printer is switched off.*

Shift Key

Either of the shift keys allows the printer to print capitals and characters/symbols shown on the upper part of the key top. Also, it releases shift lock.

Shift Lock Key

The shift is locked in position for continuous printing with the signal light on.

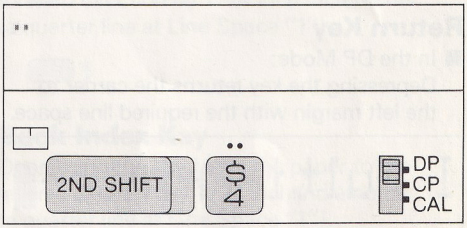
Second Shift Key

■ Combined Characters

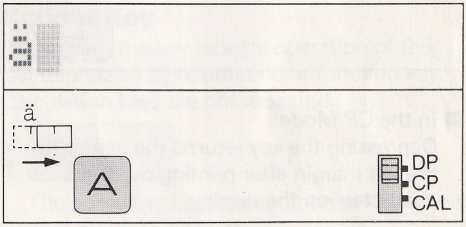
There are five silent symbols. The symbols can be combined with characters as shown forming particular characters.

^ ˇ ˊ ¨	AEIOU aeiou
~	ANO ano

To form a combined character, input a symbol while depressing the second shift key. The carrier does not move and remains in the position.



Then, print the required character completing the formation of the combined character.



■ Special Characters and Symbols

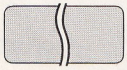
Special characters and symbols on the keyboard panel can be printed by depressing the corresponding keys while depressing the second shift key.

Note:

- ⌐¬ *shows the print head position.*

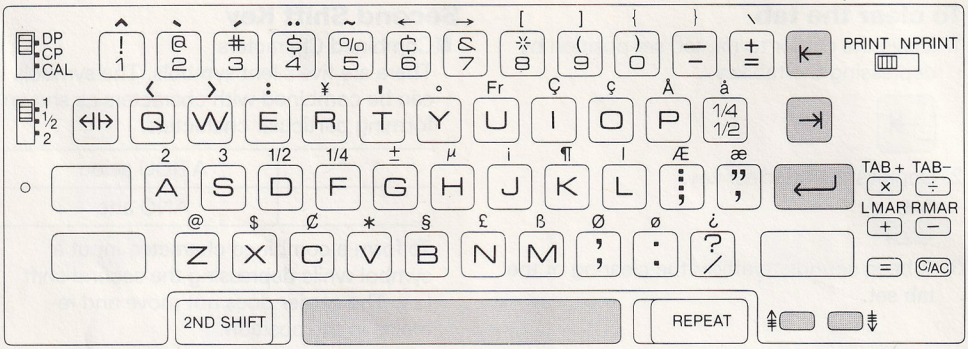
Space Bar

The carrier spaces to the right. For repeat action, depress it continuously.



FUNCTION KEYS

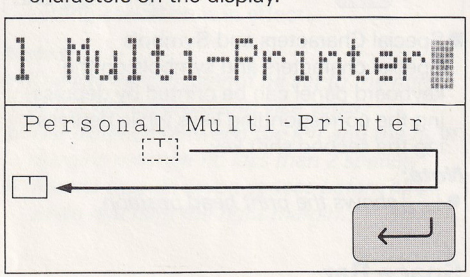
(U.S.A./Australia Keyboard 901/I)



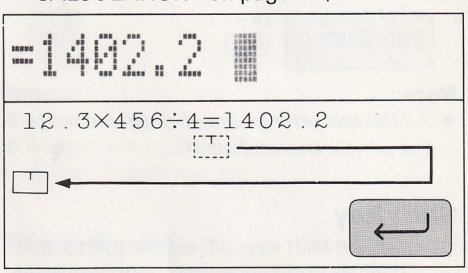
Return Key

■ In the DP Mode:
Depressing the key returns the carrier to the left margin with the required line space.

■ In the CP Mode:
Depressing the key returns the carrier to the left margin after printing out the characters on the display.

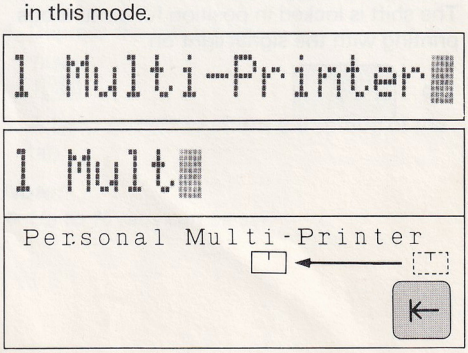


■ In the CAL Mode:
Depressing the key triggers printing of the answer of calculation, and after printing the carrier returns to the left margin. (See "CALCULATION" on page 14.)

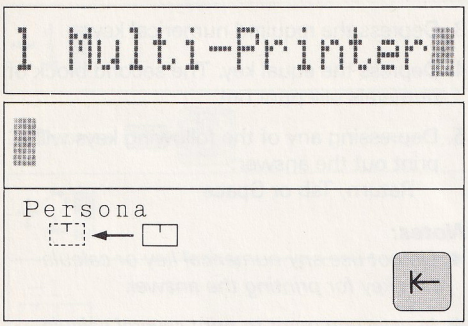


Back Space Key

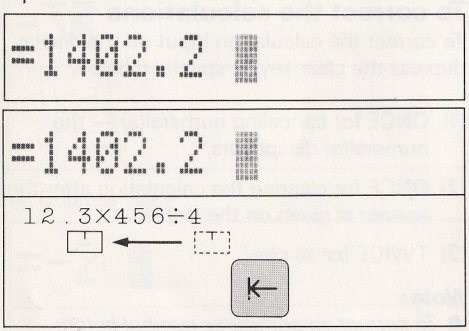
■ In the DP Mode:
Depressing the key backspaces the carrier to the left. Simultaneously the cursor moves to the left erasing the last character on the display. Correction cannot be made in this mode.



■In the CP Mode:
Depressing the key moves the cursor to the left erasing the last character on the display. Correction can be made in this way. After the cursor reaches the left limit, the carrier moves to left.



■In the CAL Mode:
Depressing the key moves the carrier to the left and numerals on the display are not erased, with the coursor staying in the position.



Tab Key

Depressing the key moves the carrier to the next tab stop. In the CP or CAL mode, if there are characters or numerals on the display, the carrier will move to the next tab stop after printing them out.

Index Key

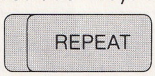
Depressing the key feeds the paper to the forward direction by 1/24 inch increments (a quarter line at Line Space "1").

Back Index Key

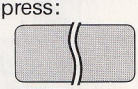
Depressing the key feeds the paper to the reverse direction by 1/24 inch increments (a quarter line at Line Space "1")..

Repeat Key

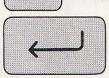
Depressing the key repeats operation of the last depressed alphanumeric or function key. Calculation keys are not repeated.



The following keys repeat themselves when continuing to depress:

Space Bar 

Back Space Key

Return Key 

Index Key

Back Index Key

Tab Key

CALCULATION

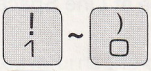
In the CAL mode, the four basic rules of calculation can be made.

To use the calculation keys

1. Set the Print/Cal mode selector to CAL.

2. Set the print selector to PRINT or N PRINT to your discretion.

The following keys can be used in the CAL mode.

Numerical keys 

Decimal point

Arithmetic keys

Clear key

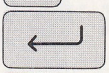
Hyphen key

Space bar

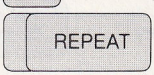
Index key

Back index key

Tab key

Return key 

Margin release key

Repeat key 

Notes:

- *If you use the other keys such as the equal key in the alphanumeric keyboard than the above, a longer beep sounds and calculation cannot be made.*
- *The hyphen key can be used as a minus number sign. e.g. 5 x (−2)= −10*
  The bracket cannot be input nor printed out.

To print the calculations

(See "Calculation Example" on page 15.)

1. Depress the required numerical keys.
2. Depress any of the calculation keys. The numerals will print out.
3. Depress the required numerical keys.
4. Depress the equal key. The second block of numerals will print out.
5. Depressing any of the following keys will print out the answer:
   Return, Tab or Space

Notes:

- *Do not use any numerical key or calculation key for printing the answer.*
- *In case you want to print several calculations in the same line, it is recommended to preset the tab and use the tab key to print the answers out.*

To correct the calculations

To correct the calculation input on the display, depress the clear key as specified below.

(1) ONCE for canceling numeral(s) — the numeral(s) disappears.

(2) ONCE for clearing the calculation after the answer is given on the display.

(3) TWICE for all clear.

Note:

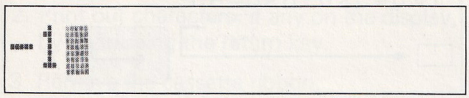
- *To correct an arithmetic symbol before inputting numerals, just input a correct symbol following the wrong one.*

Calculation Example

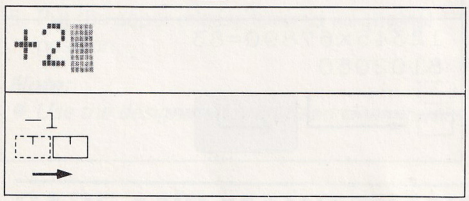
Addition and Substraction:

e.g. $-1 + 2 - 3 = -2$

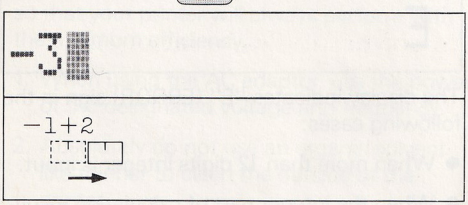
1. Depress [−] [! 1]



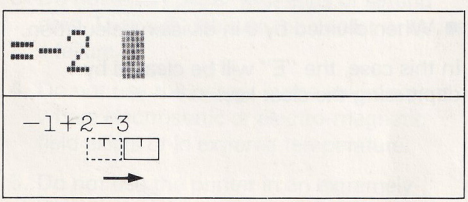
2. Depress [+] [@ 2]



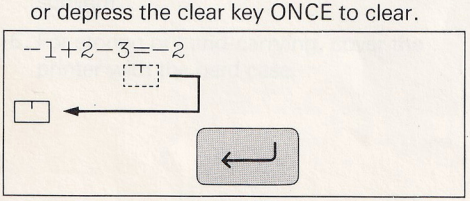
3. Depress [−] [# 3]



4. Depress [=]



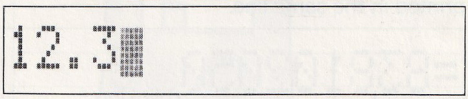
5. Depress the return key to print the answer, or depress the clear key ONCE to clear.



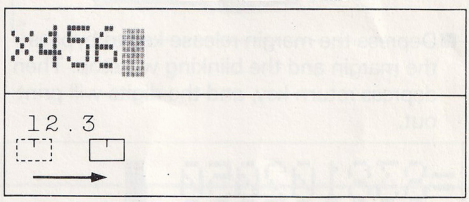
Multiplication and Division:

e.g. $12.3 \times 456 \div 4 = 1402.2$

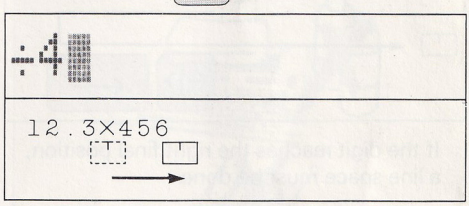
1. Depress [! 1] [@ 2] [: .] [# 3]



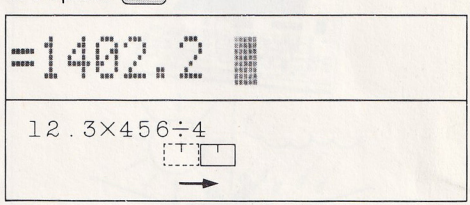
2. Depress [×] [$ 4] [% 5] [¢ 6]



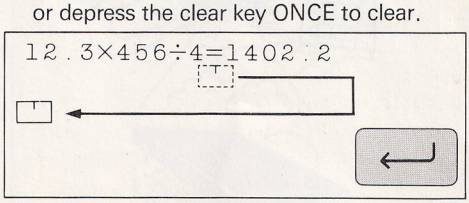
3. Depress [÷] [$ 4]



4. Depress [=]

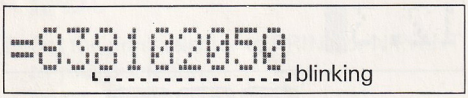


5. Depress the return key to print the answer, or depress the clear key ONCE to clear.



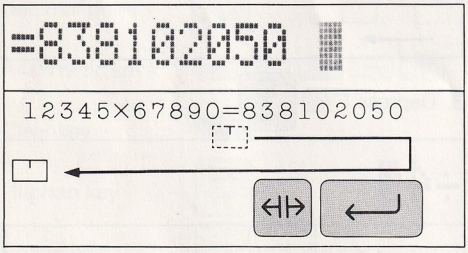
In case the digits of the calculated results blink

In case the digits of the calculated results blink on the display, the blinking digits are beyond the right margin and cannot be printed in the same line.



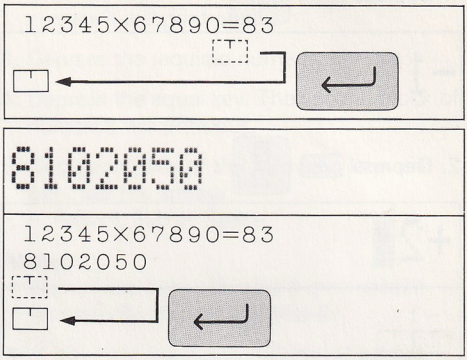
In this case, proceed as follows:

■ Depress the margin release key to bypass the margin and the blinking will stop. Then depress return key, and the digits will print out.

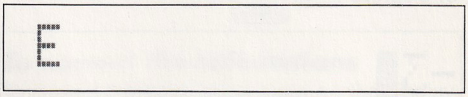


If the digit reaches the right final position, a line space must be done.

■ If the return key is depressed, the digits excluding the blinking ones will print out and the carrier returns to the left margin.
To print the remaining digits, redepress the return key, tab key or space bar.



In case the error sign "E" appears



The display indicates "E" (ERROR) sign in the following cases:

- When more than 12 digits integer is input.
- When the integer part of calculation result exceeds 12 digits.
- When divided by 0 in division calculation.

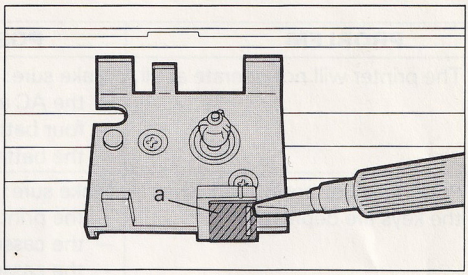
In this case, the "E" will be cleared by depressing the clear key.

PRINT HEAD CLEANING

The print head must be cleaned at regular intervals with the accessory print head cleaner.

To clean the print head

1. Remove the paper if inserted in the platen. Pull the paper release lever towards you.
2. Print out characters, if any on the display, by depressing the return key.
3. Remove the cassette ribbon.
4. Remove contaminants by rubbing the shaded portion (a) with the head cleaner.
5. Put the paper release lever to its original position.



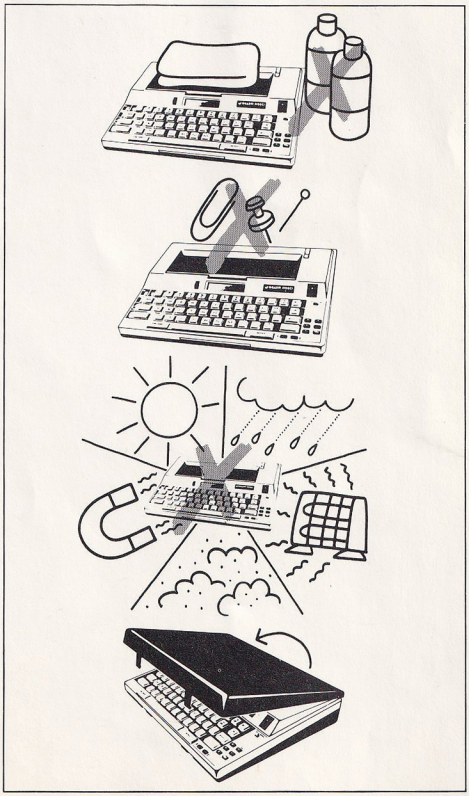
Note:

- *Use the designated print head cleaner only.*

CARE AND MAINTENANCE

Please carefully follow the instructions below so that your printer will always perform with the optimum efficiency.

1. When using the AC adaptor, use the power of the designated voltage and frequency.
2. Absolutely do not use an organic solvent like thinner to clean the outside of the printer.
3. Do not insert paper with clips or setting pins. They will damage the printer or cause a failure.
4. Do not use the printer in the environment where electrostatic or electro-magnetic field exists or in extreme temperature.
5. Do not use the printer in an extremely dusty or humid place, or under direct sunlight.
6. For storing or hand-carrying, cover the printer with the hard case.



IN CASE OF DIFFICULTY

The following is a quick reference table if the printer does not operate. If the problem persists, then consult your nearest dealer.

PROBLEM	POSSIBLE CAUSES
The printer will not operate at all.	Make sure: — the AC adaptor is plugged in. — four batteries are installed with correct polarity. — the batteries are not exhausted.
Printing is not performed when the keys are depressed.	Make sure: — the print mode selector is set on PRINT mode. — the cassette ribbon is properly set. — the cassette ribbon is not depleted. — the thermal paper is properly used. (The chemically processed side facing you.) — the print head is not contaminated. — the paper release lever is put in its original position.
Margins or tabs cannot be set properly.	Make sure: — the PRINT/CAL mode selector is set on DP mode.

IMPORTANT

(for U.S.A. only)

This printer generates and uses radio frequency energy. If not installed and used in strict accordance with the manufacture's instructions, it may cause interference to radio and television reception. It has been print tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Sub-part J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the printer off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna
- relocate the printer with respect to the receiver
- move the printer away from the receiver
- plug the printer into a different outlet so that the printer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems"

This booklet is available from the US Government Printing Office, Washington, DC., 20402, Stock No. 004-00000345-4.

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